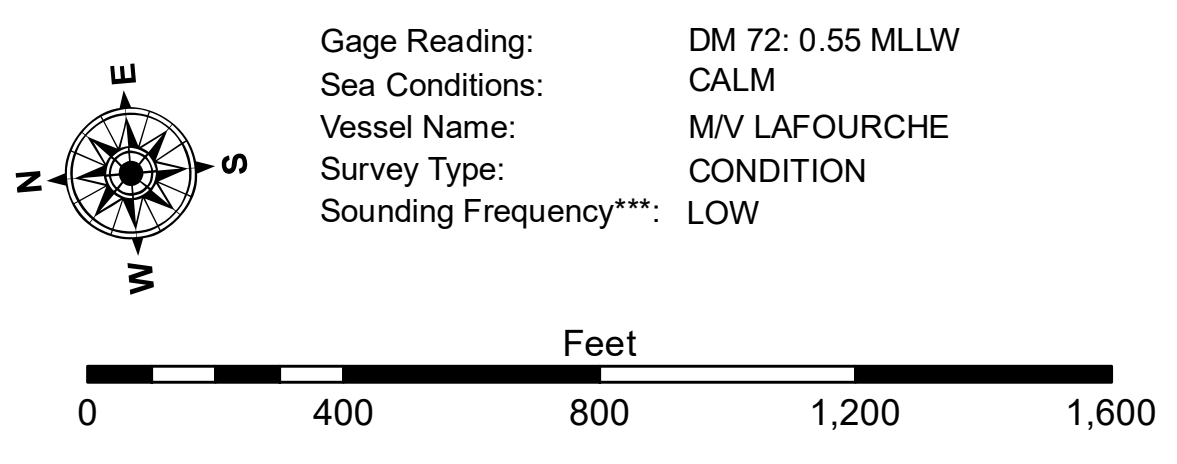


LEGEND

--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	■ -16' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	■ -16' to -21'
— As-built Pipeline/Cable	⊗ Anchorage Area	★ Beacon, General	■ -21' to -26'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	■ -26' to -33'
— Project Depth Contour	⊗ Wrecks-Submerged	◆ Green Navigation Buoy	■ -33' to -39'
			■ -39' to -41'
			■ -41' to -43'
			■ -43' and below



NOTES:
 Horizontal Coordinate System:
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), Louisiana South Zone. Distance units in U.S. Survey Feet.
 Vertical Datum:
 Soundings are shown in feet and indicate depths below Mean Lower Low Water Datum (MLLW).
 Datum Relationships for gage 73615 as of December 2013:
 0.0' NAVD83 (2009.55) = 1.1' MLLW = 2.1' MLG or 0.0' MLLW = 1.0' MLG
 Distances on the Calcasieu River are shown at 1 mile intervals.
 The location of navigation aids are base on and provided by the U.S. Coast Guard and USACE survey crews.
 2015 Aerial Photography data source: NAIP
 Reference is N.O.A. Navigation Chart No. 11339.
 * Difference between high and low frequency elevations where greater than 1.0'.
 ** Shoalest Sounding per Quarter per Reach.
 *** High frequency (200 kHz) survey data represents the first signal return at a sounding location and will include suspended solids, known as "fluff", if present. Low frequency (20 kHz) survey data normally penetrates through this "fluff" layer to depict elevations of consolidated bottom material. Low frequency accuracies may vary depending on channel conditions and fathometer settings.



DISCLAIMER
 The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the Government makes no warranty, expressed or implied, regarding the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information furnished. The user is responsible for the results obtained from the use of this information. The user shall not hold the United States Government liable for any damages, including but not limited to, direct, indirect, special, incidental, or consequential damages, arising out of the use of this information. The user shall indemnify and hold the United States Government harmless from and against all claims, damages, losses, and expenses, including reasonable attorneys' fees, that may be asserted against or incurred by the United States Government as a result of the use of this information. The user shall not transfer these data to others without also transferring this Disclaimer. The information depicted on this map represents the results of a survey conducted on or about the date shown. It is not intended to represent the general condition existing at that time.

U.S. ARMY CORPS OF ENGINEERS
 NEW ORLEANS DISTRICT

Submitted:	Surveyed By: JH/JA
Recommended: Chief, Survey Section	Plotted By: BD
Approved: Chief, Waterways Maintenance Section	Checked By: AC

**CALCASIEU SHIP CHANNEL
 LOWER SHEET 20
 CR_20_LWR_20190129_CS
 29 January 2019**

**Sheet Reference Number
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